

I CLAIM:

1. A water conditioner for eliminating scale formation, comprising a housing having an inlet, an outlet, and a chamber, having a wall, providing fluid communication between the inlet and outlet; and

a core having a surface, the core being received within the chamber, the chamber wall and core surface providing a flow path between the inlet and outlet, the core surface consisting essentially of 40-60% copper, 2-30% zinc, 10-25% nickel, 1-5% tin, 0-1.5% iron and 0-1% lead, all percentages by weight.

2. The water conditioner of claim 1 wherein lead is .005-.5%.

3. The water conditioner of claim 1 wherein lead is less than .01%.

4. The water conditioner of claim 3 wherein iron is .005-1%.

5. The water conditioner of claim 1 wherein lead is zero.

6. The water conditioner of claim 1 wherein copper is 58-62%, zinc is 20-25%, nickel is 12-16%, tin is 2-3.5%, iron is .005-1% and lead is .005-.5%.

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7. A method for conditioning an aqueous liquid comprising the steps of providing a hollow chamber having an inlet and an outlet, providing a solid material body in the chamber, passing the aqueous liquid through the chamber and contacting the solid material body and liquid and recovering conditioning liquid from the outlet, the solid material body having a surface exposed to the aqueous liquid consisting essentially of 40-66% copper, 2-30% zinc, 10-25% nickel, 2-5% tin, 0-1.5% iron and 0-1% lead, all percentages being by weight.

8. The method of claim 7 wherein lead is 0-.5%.

9. The method of claim 7 wherein lead is 0-.1%.

10. The method of claim 9 wherein iron is 0-.5%.

11. The method of claim 7 wherein lead is zero.

12. The method of claim 7 wherein copper is 58-62%, zinc is 21-26%, nickel is 15-17%, tin is 2-3%, iron is .05-.5% and lead is .01-.5%.

13. A method for conditioning a liquid hydrocarbon fuel comprising the steps of providing a hollow chamber having an inlet and an

outlet, providing a solid material body in the chamber, passing the liquid hydrocarbon fuel through the chamber and contacting the solid material body and liquid and recovering conditioning liquid from the outlet, the solid material body having a surface consisting essentially of 40-66% copper, 2-30% zinc, 10-25% nickel, 2-5% tin, 0-1.5% iron and 0-2% lead, all percentages being by weight.

14. The method of claim 13 wherein lead is .01-.5%.

15. The method of claim 13 wherein lead is less than .01%.

16. The method of claim 13 wherein iron is .05-.5%.

17. The method of claim 13 wherein lead is zero.

18. The method of claim 13 wherein copper is 58-62%, zinc is 21-26%, nickel is 14-17%, tin is 2-3%, iron is .05-.5% and lead is .01-.5%.